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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/609,447

06/27/2003

Jianbo Lu

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4905

28549

7590

07/13/2004

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EXAMINER

BEAULIEU, YONEL

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,447

Applicant(s)

LU ET AL.

Examiner

Yonel Beaulieu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-29, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/27/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

Claims 8 – 21 and 31 - 33 are rejected under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 8, it is not clear as to how the “wheel averaging method” (line 3) within the method (line 1) claimed is carried out to perform the response.

Regarding claim 9, “the reference bank angle” (line 4) and “the linear bank angle” (line 5) lack antecedent basis as those limitations have not previously been identified.

Claims 10 – 13 are necessarily rejected as being dependent upon the above rejection.

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Regarding claim 14, "the absolutely grounded condition" (line 5) lacks antecedent basis. An *absolutely* grounded condition has not previously been identified.

Claims 15 and 18 - 21 are necessarily rejected as being dependent upon the rejection of claim 14 above.

Regarding claims 16 and 17, "...possibly grounded" (line 4 in claim 16; lines 4 and 6-7 in claim 17) is not readily understood. What specifically determines that *possibility*?

Regarding claim 22, "the absolutely lifted condition" (line 5) lacks antecedent basis. An *absolutely* lifted condition has not previously been identified.

Claims 23 - 29 are necessarily rejected as being dependent upon the rejection of claim 22 above.

Regarding claims 31 and 32, "wherein lifted is absolutely lifted" and "wherein grounded is absolutely grounded" (bridging lines 1-2, respectively) is not understood. The respective limitations appear not complete.

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Regarding claim 33, it is not understood as to how the "...wheel lift detection method" (bridging 3-4 and 4-5, respectively) is carried out within the method (established in the preamble).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 9, 12 - 14, 21 - 23, 29, 31, and 32 are rejected under 35

U.S.C. 102(b) as being anticipated by Mine (5,515,277).

Regarding 1 – 8, 12, 13, 21, 29, 31, and 32 claims Mine teaches all of the limitations including determining yaw rate (col. 7: 6 – 19), lateral acceleration (note items 15/24 in fig. 1), roll rate (item 23) and longitudinal acceleration (items 14/19) and calculated adjusted angle relative to the vehicle in response to wheel lift (see fig. 6; note item 16 in fig. 1), and controlling a safety system in response to the calculated vehicle angle (col. 8: 60 – col. 10: 5 at least) and determination of pitch acceleration (col. 6: 4 – 16 and col. 7: 34 – 50 at least).

Regarding claims 9 and 14, Mine teaches operating a control system for a vehicle comprising detecting a wheel grounded condition (col. 8: 21 – 33 at least)

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and adjusting (setting to about zero) a bank (departure) angle in response to the condition (col. 4: 3 – 18 at least).

Regarding claims 22 and 23, Mine teaches operating a control system for a vehicle comprising determining a wheel lift condition (col. 8: 21 – 33 at least) and adjusting roll signal in response to the lifted condition (col. 6: 66 – col. 7; 5 at least).

Allowable Subject Matter

Claims 10, 11, 15 – 20, and 24 - 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

A statement of reasons supporting the allowable subject matter will be provided upon clarifying the claim language.

Claims 30 and 33 is allowed. The prior art of record fail to teach operating a control system for a vehicle comprising determining a *front inside* wheel lift state, a *rear inside* wheel lift state, wherein *when the front inside wheel lift state is lifted and the rear inside wheel is not grounded or the rear wheel is lifted and the front inside wheel is not grounded, calculating a wheel departure angle and*

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the above operation wherein in response to the vehicle configuration setting,
switching between a first wheel lift detection and a second wheel lift detection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yonel Beaulieu whose telephone number is (703) 305-4072. The examiner can normally be reached on M-R, from 0900-1600.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas BLACK can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Y. BEAULIEU
AU 3661


Y. BEAULIEU
PRIMARY EXAMINER